

2. SCIAMACHY Daily Report for level 2 products

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2.1 General Info

This report contains a daily analysis on parameters extracted from SCIAMACHY level 2 data (The SCI_OL__2P product).

2.1.1 Report summary

The table below shows general characteristics of the data that are included into this report.

Item	Value
Report version	1.5 (01-07-2008)
Time of report generation	29JUL2008 12:40:19
Data source version	SCIA-OL/3.01-R
Processing scope for products	19JAN2004 00:00:00 to 20JAN2004 00:00:00
Start time of first product within scope	18JAN2004 23:38:40
Stop time of last product within scope	19JAN2004 09:51:13
Total number of level 2 products	7
Number of level 2 products with errors	0

2.1.2 Summary per product

The following table shows a summary for each product used in this report.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	SCI_OL__2PRDPA20040118_233840_000032372023_00288_09861_6410.N1	18JAN2004 23:38:40	19JAN2004 00:32:38	0	GOOD
1	SCI_OL__2PRDPA20040119_011752_000033772023_00289_09862_6039.N1	19JAN2004 01:17:52	19JAN2004 02:14:09	0	GOOD
2	SCI_OL__2PRDPA20040119_025951_000032372023_00290_09863_4107.N1	19JAN2004 02:59:51	19JAN2004 03:53:49	0	GOOD
3	SCI_OL__2PRDPA20040119_043903_000033772023_00291_09864_6156.N1	19JAN2004 04:39:03	19JAN2004 05:35:20	0	GOOD
4	SCI_OL__2PRDPA20040119_070208_000007722023_00292_09865_6270.N1	19JAN2004 07:02:08	19JAN2004 07:15:00	0	GOOD
5	SCI_OL__2PRDPA20040119_080015_000033772023_00293_09866_6141.N1	19JAN2004 08:00:15	19JAN2004 08:56:32	0	GOOD
6	SCI_OL__2PRDPA20040119_094214_000005392023_00294_09867_6377.N1	19JAN2004 09:42:14	19JAN2004 09:51:13	0	GOOD

2.2 Product Quality Indicators

2.2.1 Cloud parameters

This is a new section that shows information about the cloud parameters estimation, in particular cloud fractions and cloud top height. IMPORTANT NOTE: The contents and layout of this section are still being validated. Please use with caution.

General statistics:

Total number of cloud data DSRs: 40187

Total number of cloud data DSRs with good quality flag (=0): 40187 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	40187	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	40187	0.22275	0.25000	0.12500	1.0000	0.10518	s
CL_FRAC	40187	0.48625	0.49705	0.0000	1.0000	0.27528	-
CL_FRAC_ERR	40187	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	40187	7.1281	8.0000	4.0000	32.000	3.3656	
PMD_READ_CL[0]	40187	0.30562	0.0000	0.0000	25.000	1.2816	-
PMD_READ_CL[1]	40187	0.40389	0.0000	0.0000	32.000	2.0855	-
CL_TOP_HEIGHT	36213	4.4354	3.7270	0.0000	17.000	3.6764	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	36213	51.308	36.880	0.0000	101.00	39.177	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	40187	11100000	11100000	11100000	11100000	0.0000	flags. Bit definition = 0: low or high cloud; 1: ice or water cloud; 2: thick or thin cloud; 3-15: not used

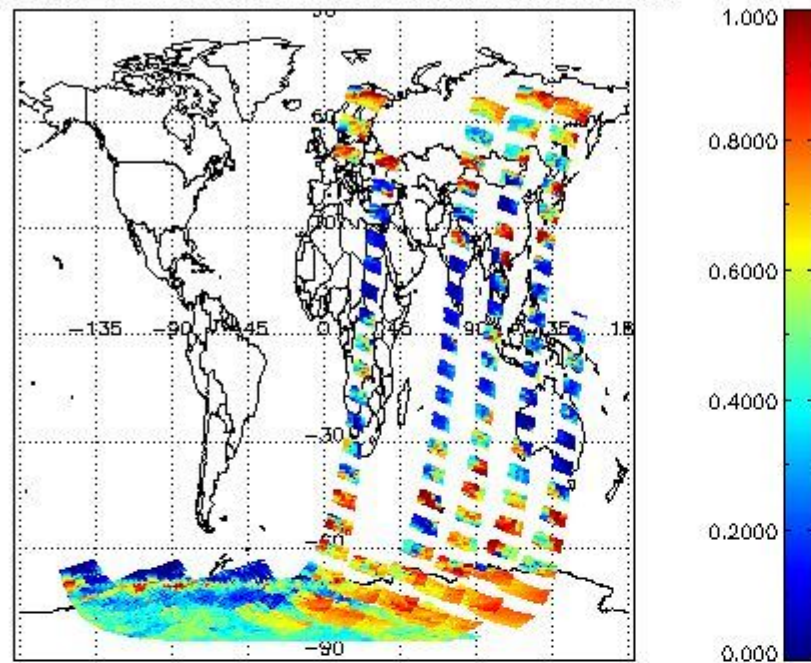
CLOUD_FLAGS	40187	11000110	11000010	11000000	11100000	2503.5	flags
AERO_ABSO_IND	40187	0.68244	0.42606	-4.2038	11.821	1.2207	
AERO_IND_DIAG	40187	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	40187	01100110	11000000	00000000	11000000	24523.	flags

Time and geolocation plots:

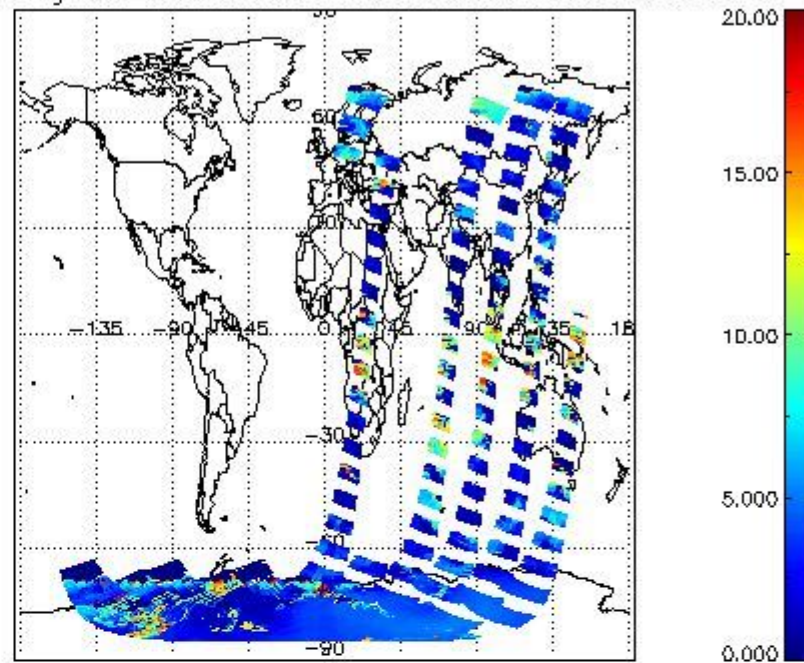
Plots are available for the following parameters:

Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags

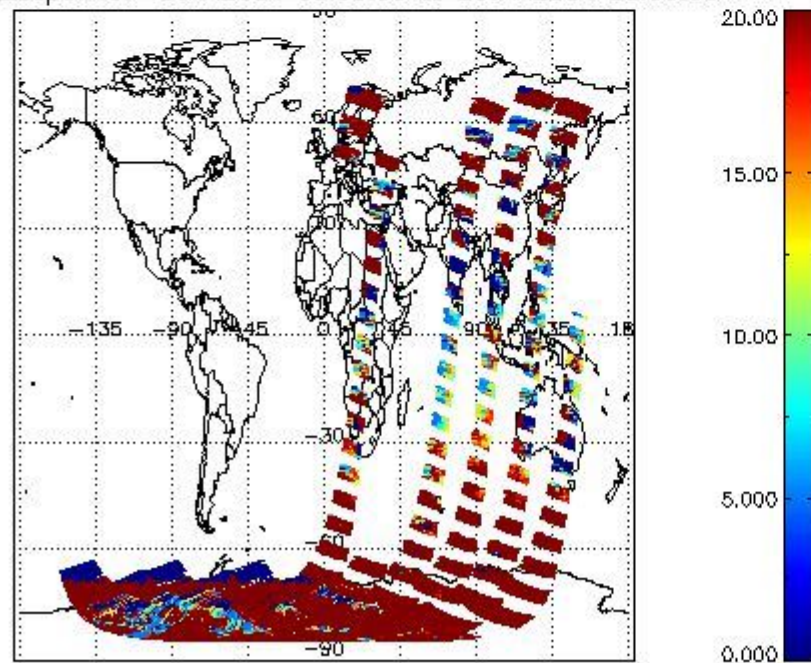
cL_frac for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



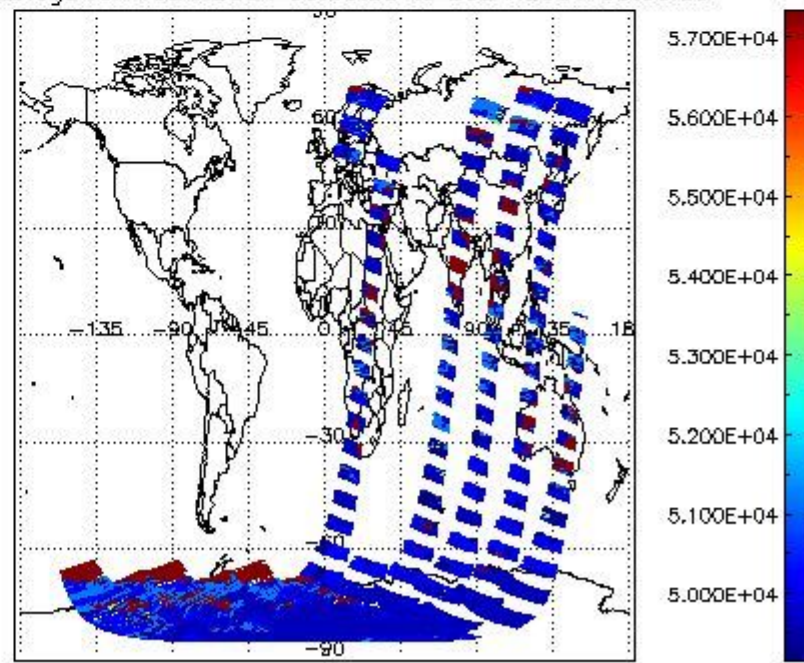
cL_top_height for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



cLopt_depth for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



cloud_flags for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



2.2.2 Nadir

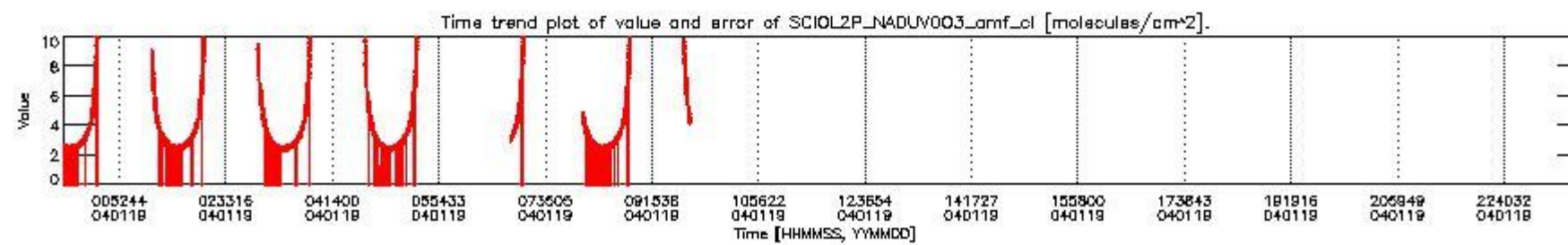
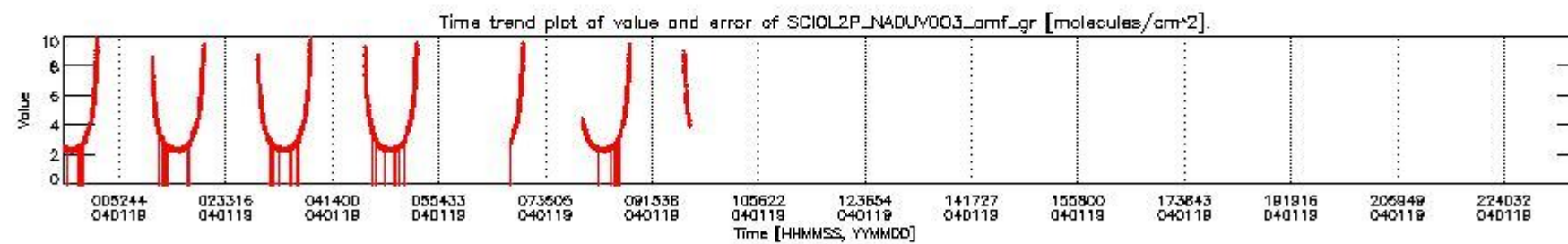
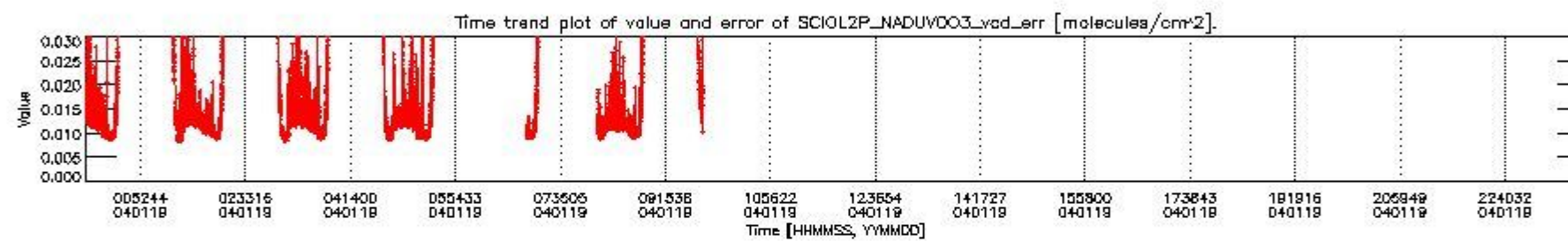
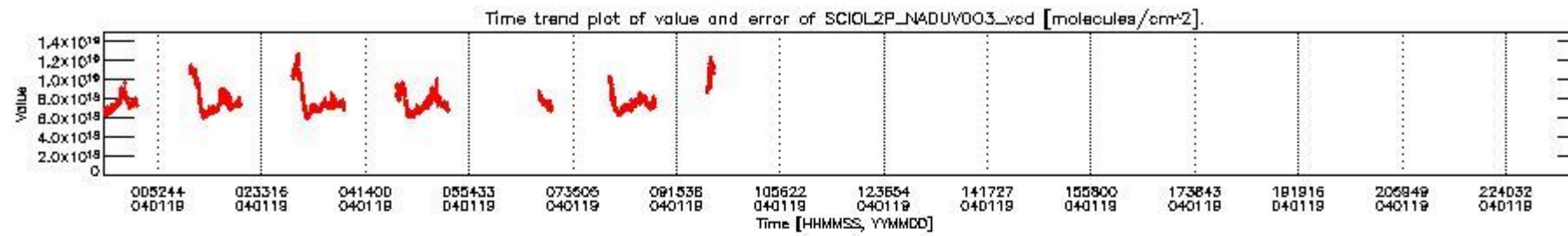
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

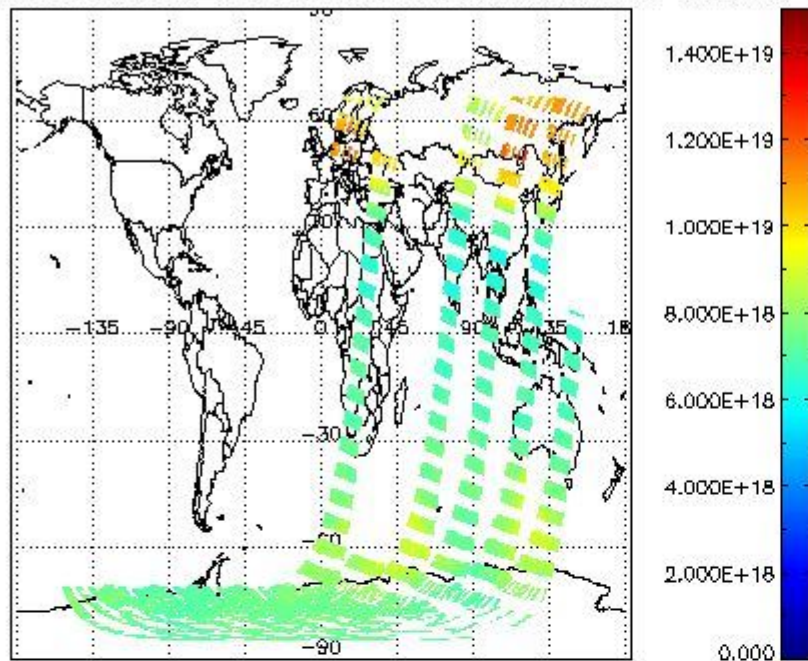
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

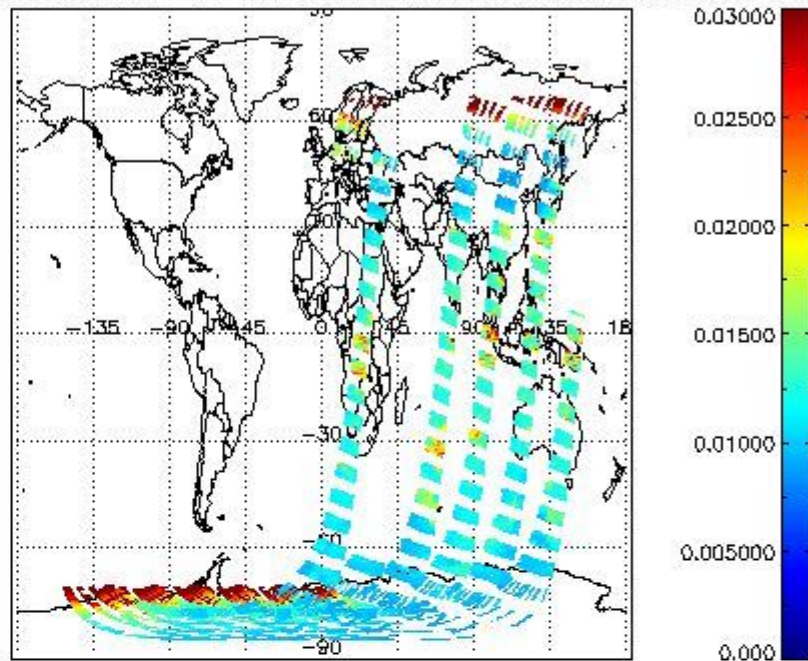
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the MPH.



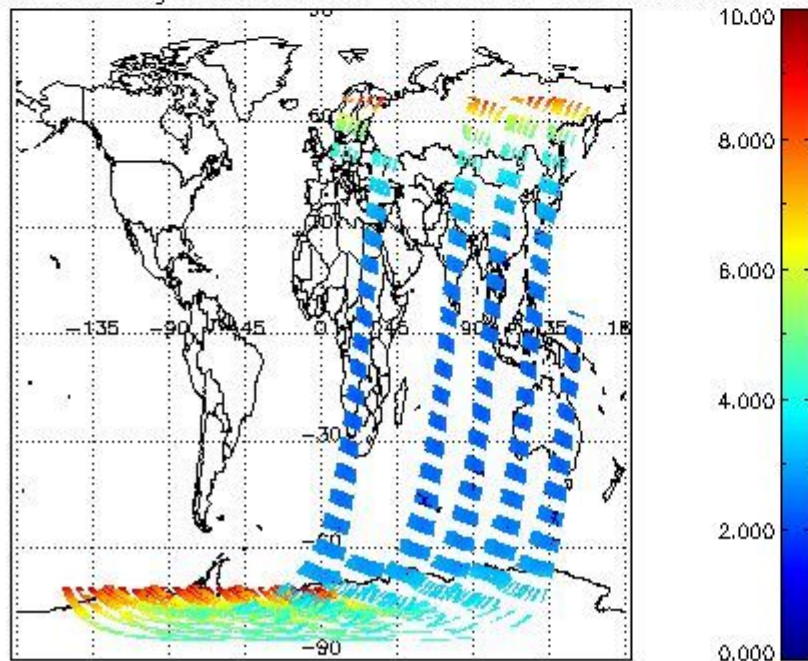
SCIOL2P_NADUV003_vcd for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



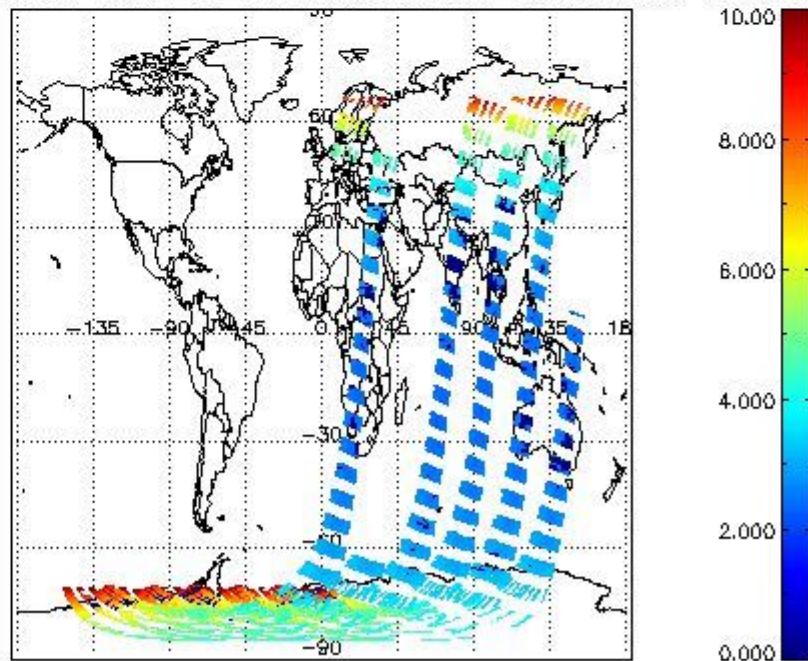
SCIOL2P_NADUV003_vcd_err for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

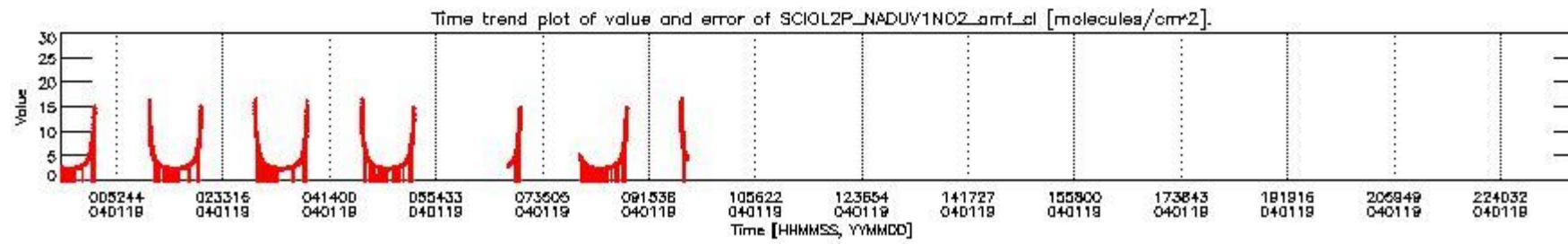
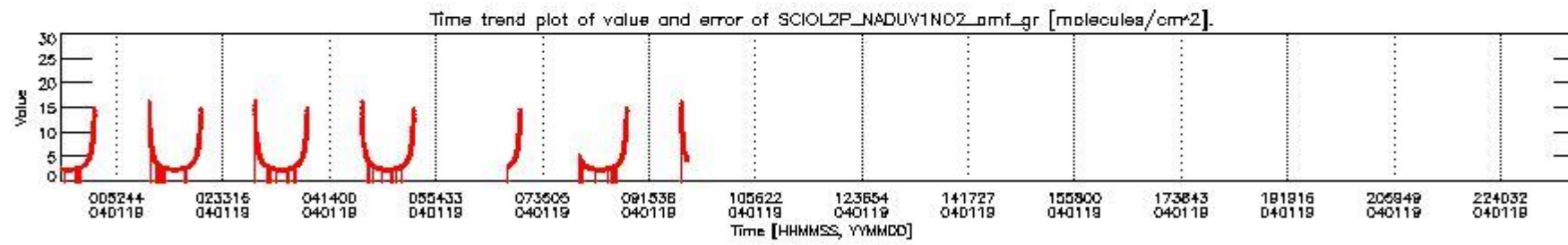
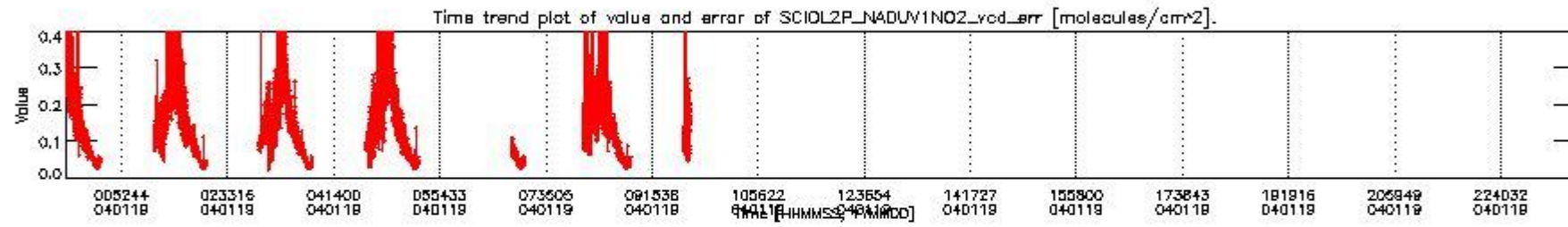
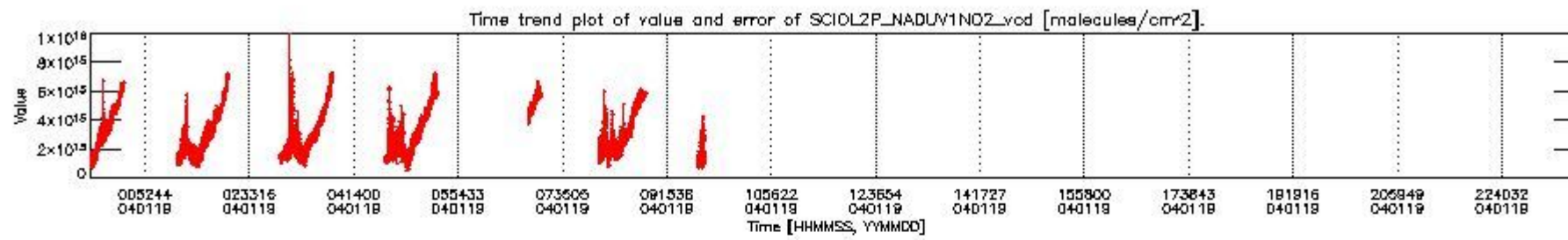


SCIOL2P_NADUV003_amf_gr for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

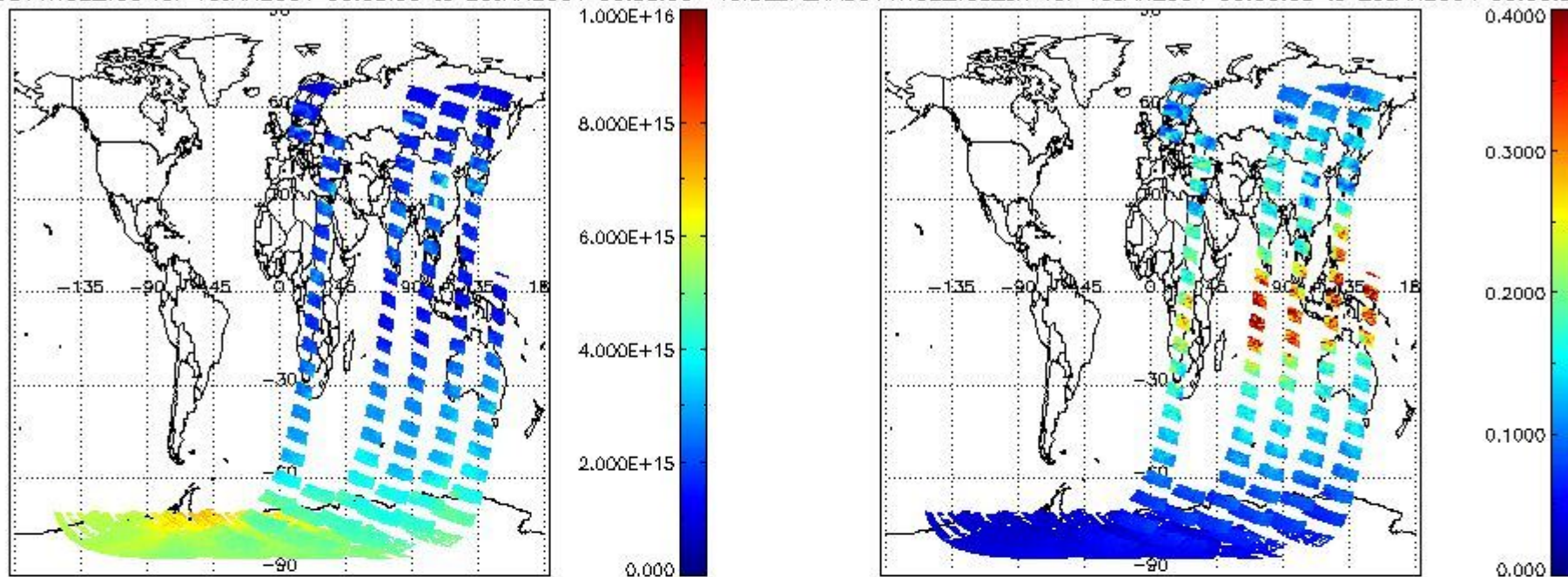


SCIOL2P_NADUV003_amf_cl for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

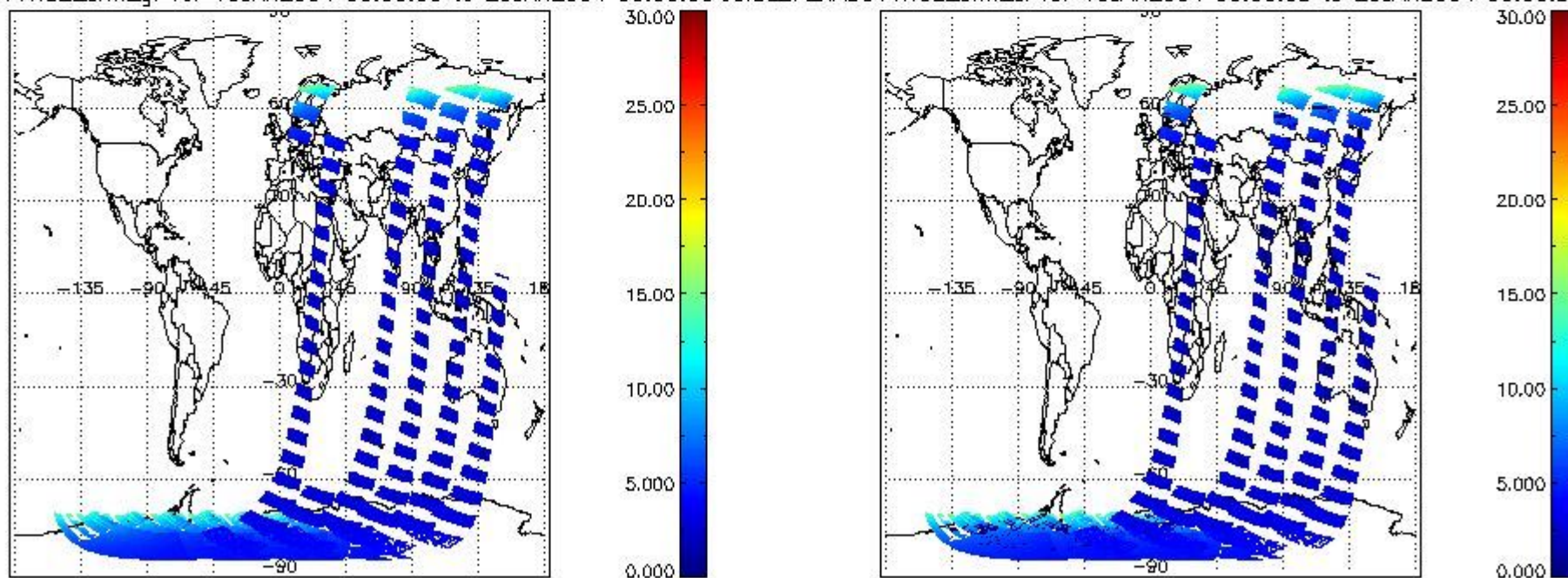




SCIOL2P_NADUV1NO2_vcd for 19JAN2004 00:00:00 to 20JAN2004 00:00:00 SCIOL2P_NADUV1NO2_vcd_err for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



SCIOL2P_NADUV1NO2_amf_gr for 19JAN2004 00:00:00 to 20JAN2004 00:00:00 SCIOL2P_NADUV1NO2_amf_cl for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



2.2.3 Limb

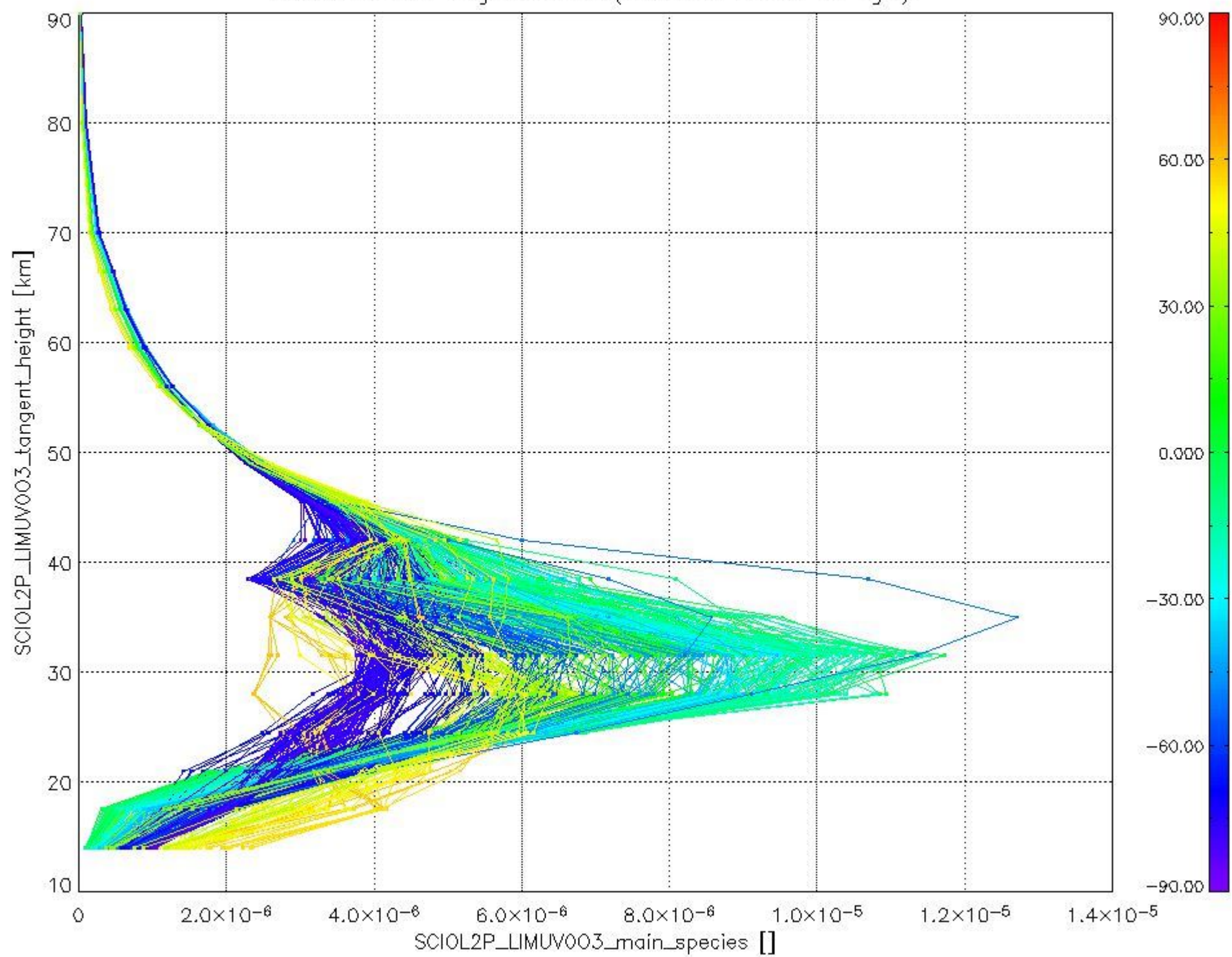
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

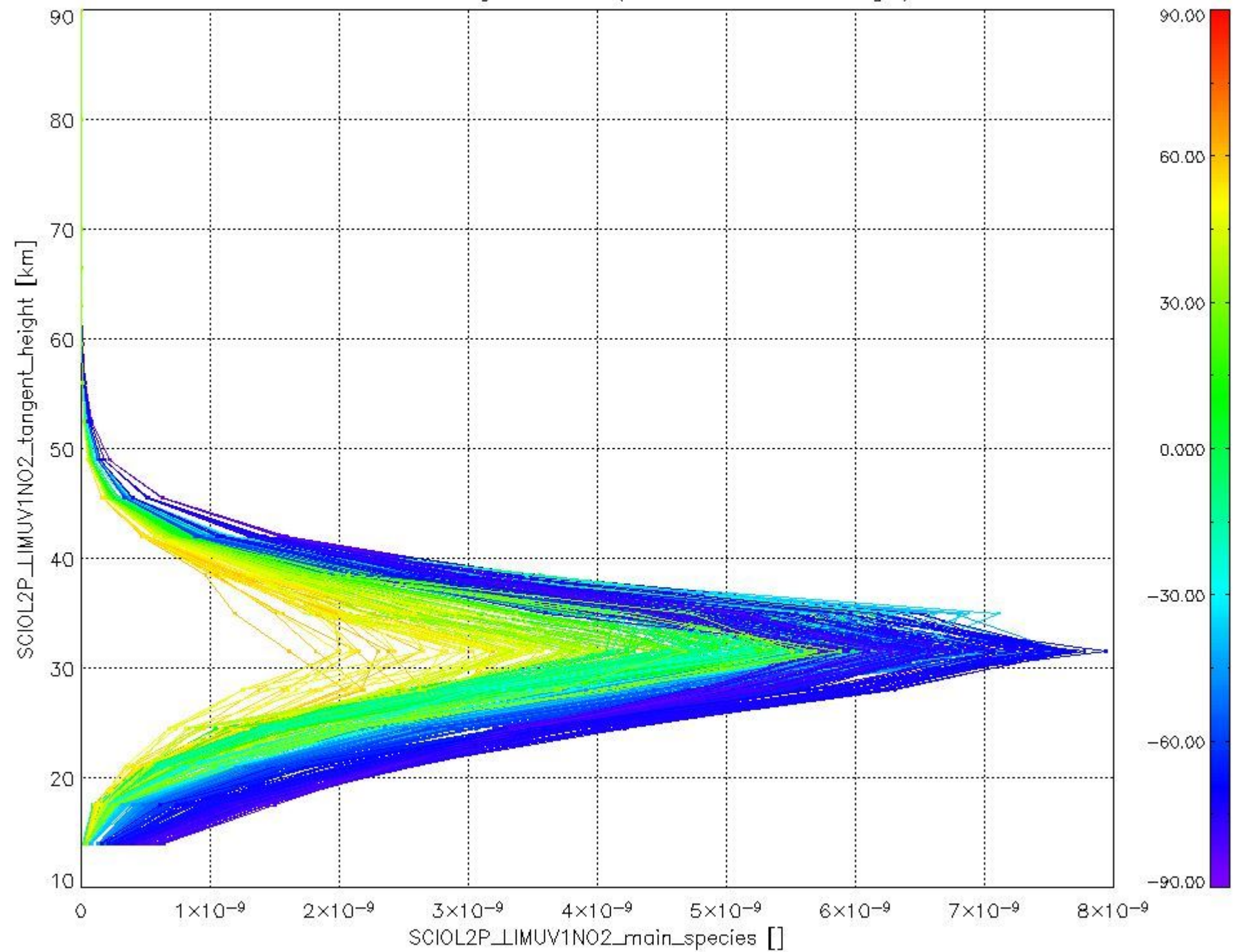
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

Plot of SCIOL2P_LIMUV003_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).



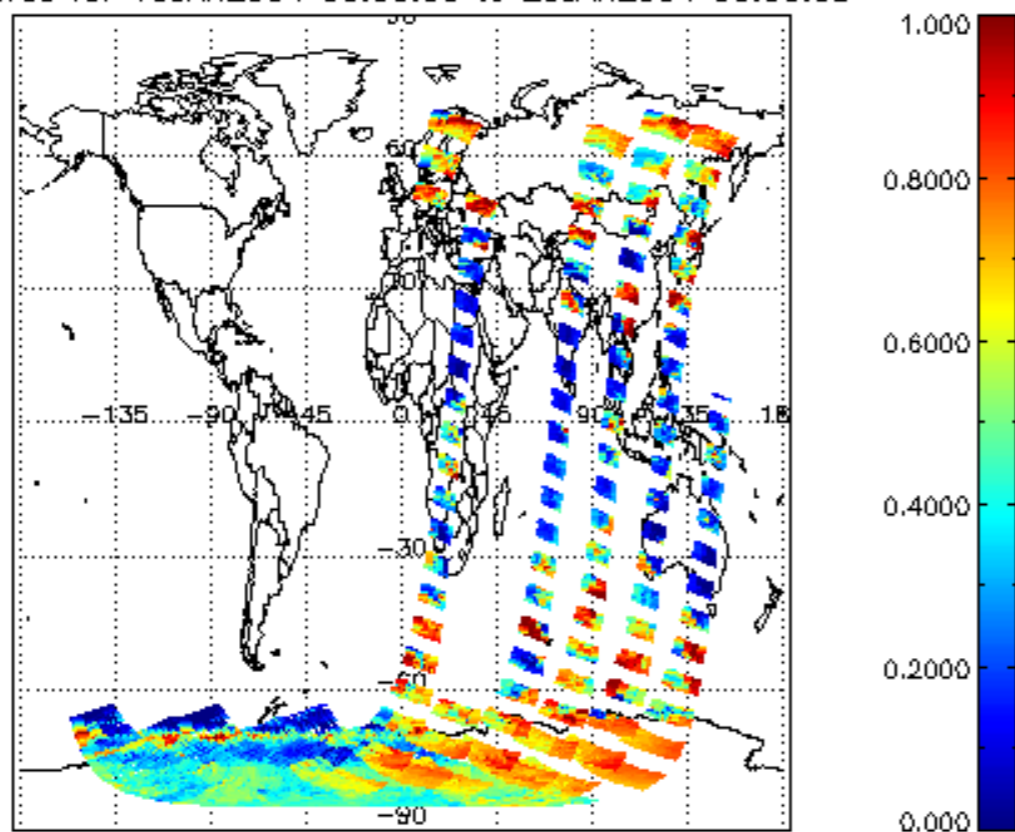
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).



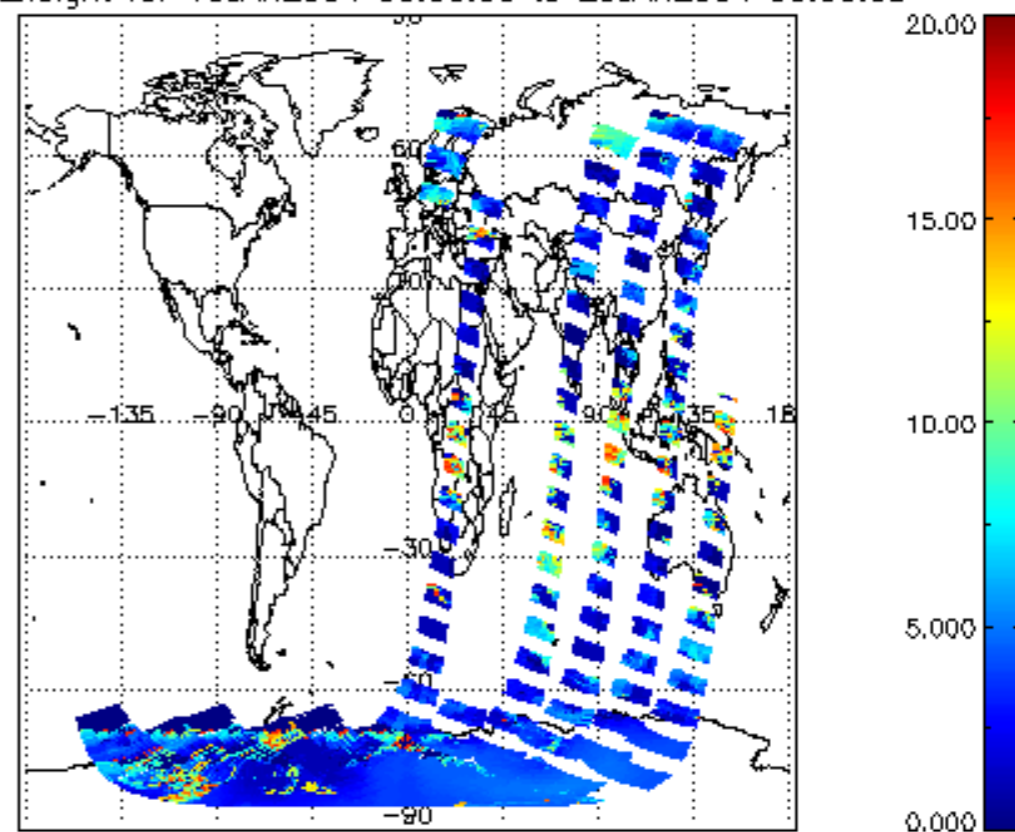
2.3 ADF monitoring

Number	ADF
	IN_ (INITIALISATION_FILE)
0	SCI_IN_AXNPDE20070629_092400_20070720_000000_20991231_235959
	ECF (ECMWF_FILE)
1	NOT USED

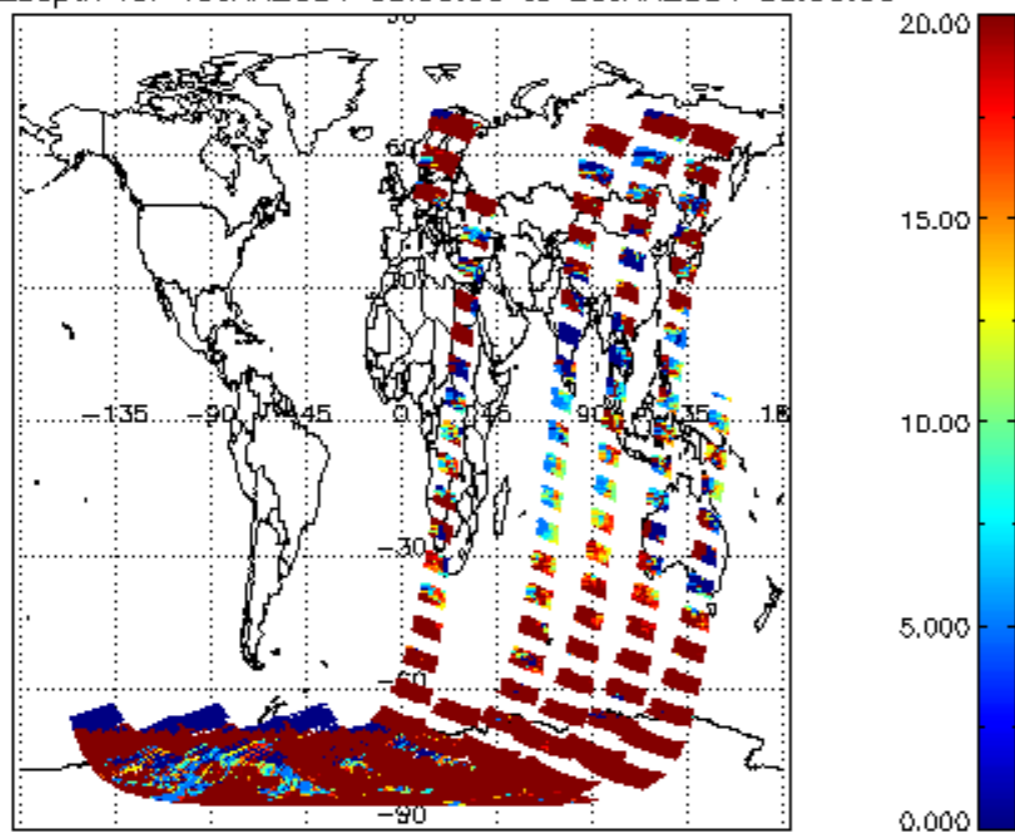
cL_frac for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



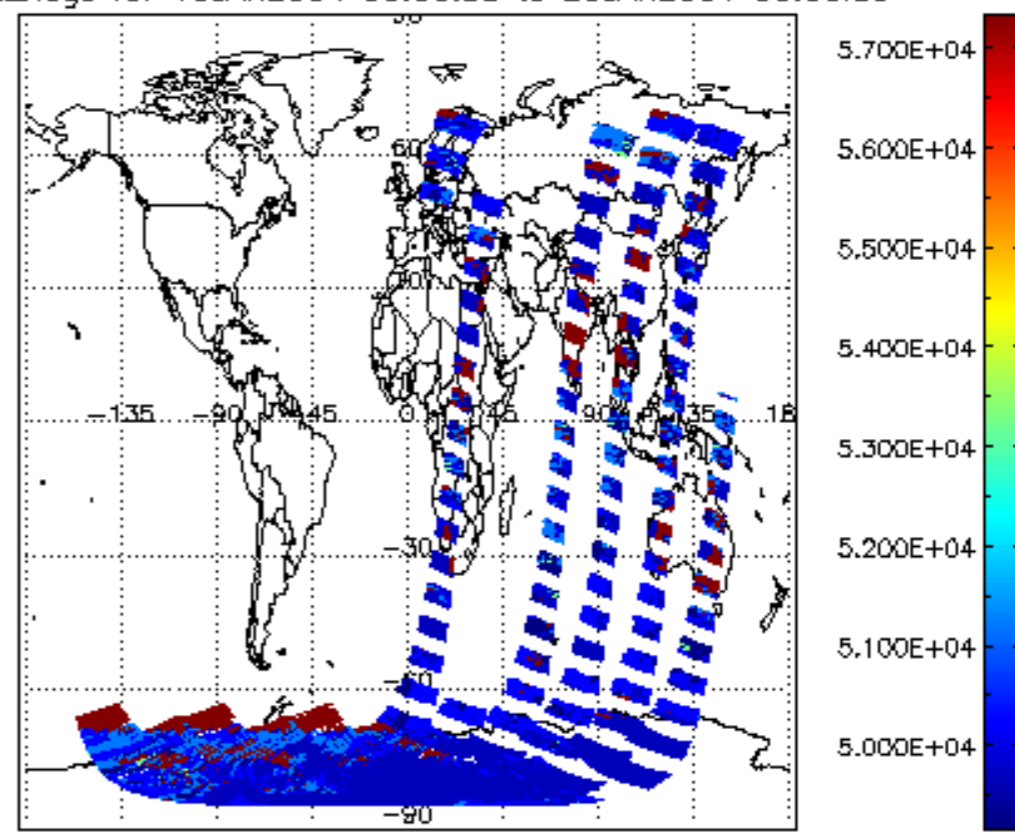
cL_top_height for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

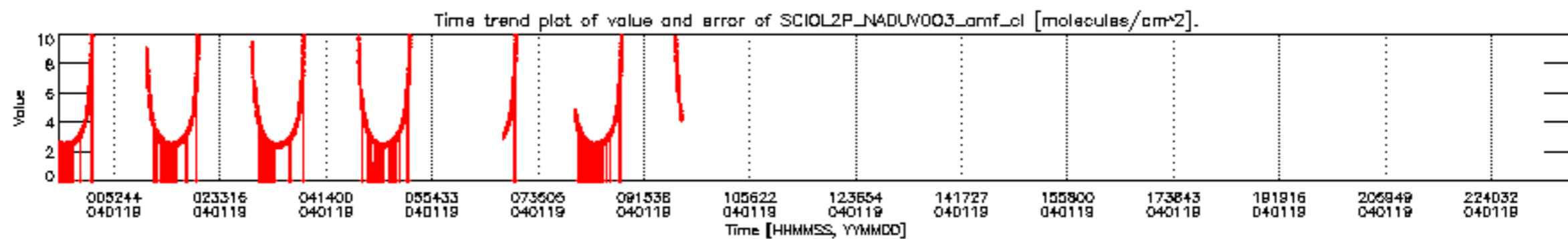
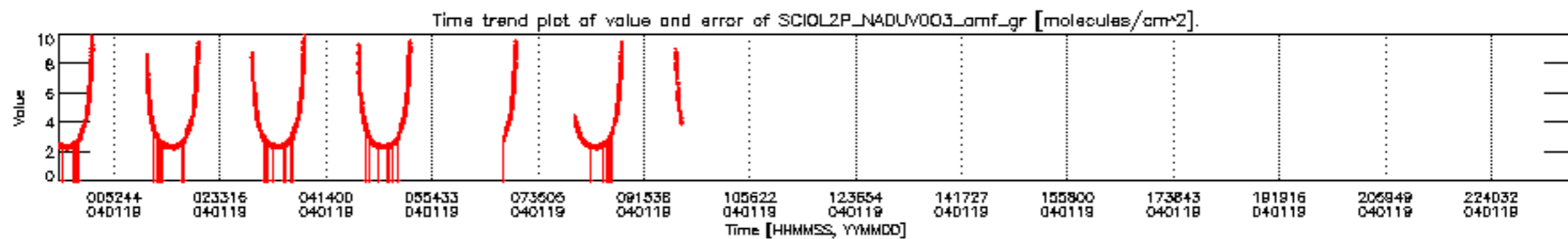
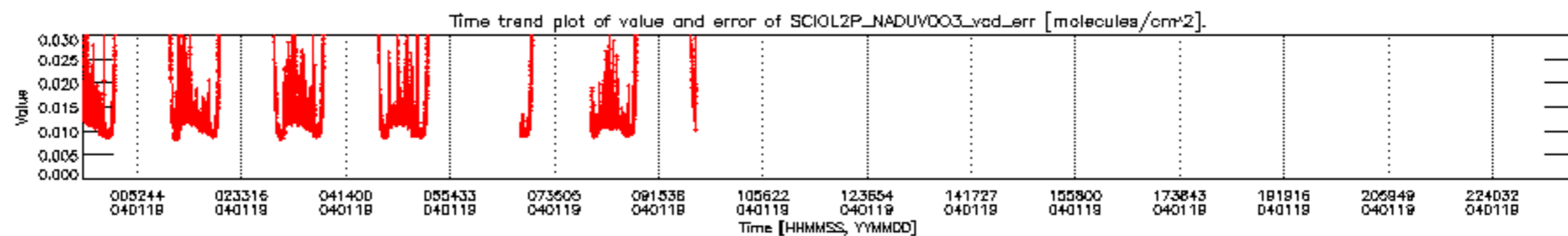
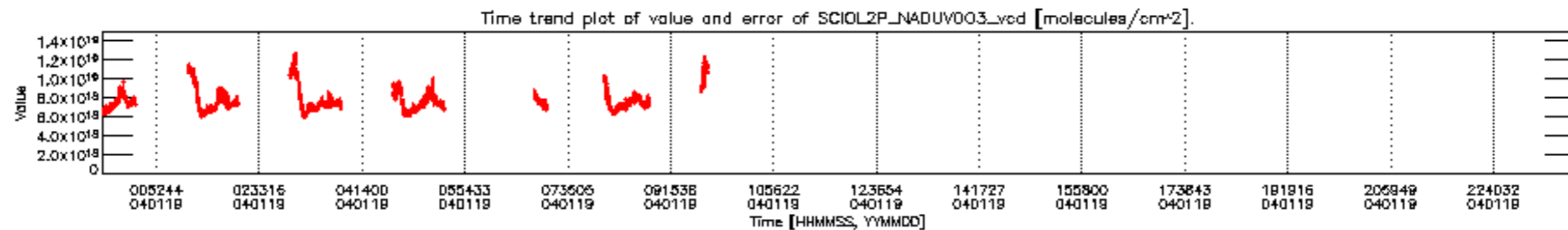


cLopt_depth for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

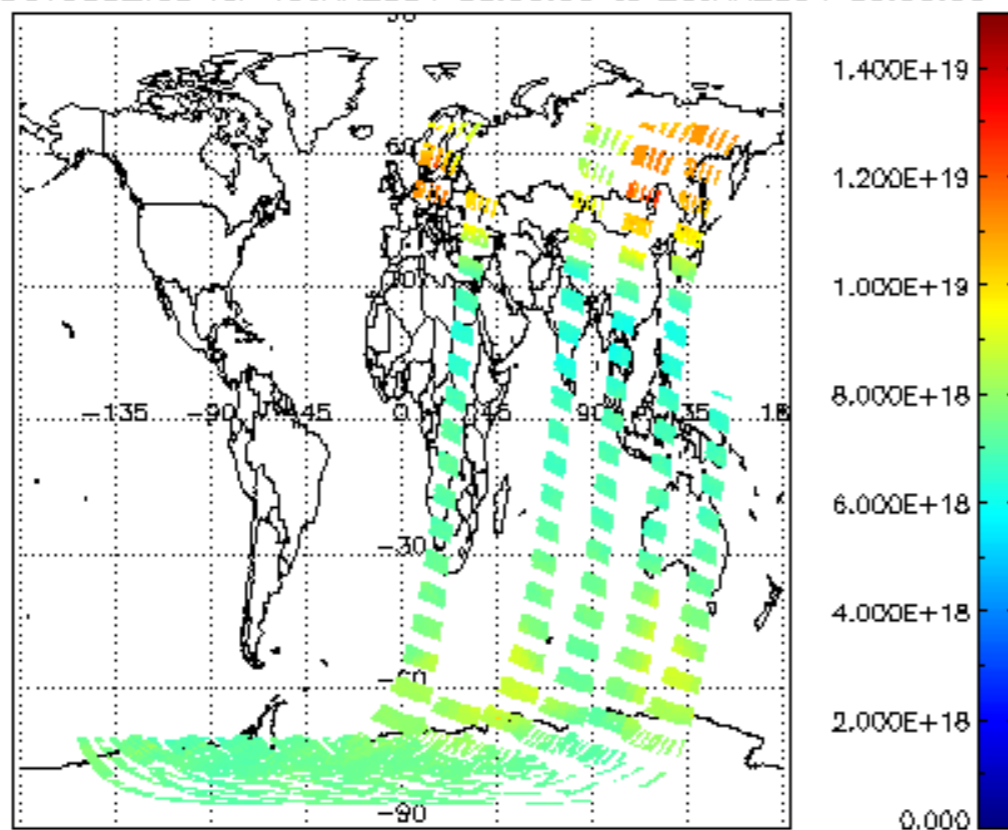


cloud_flags for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

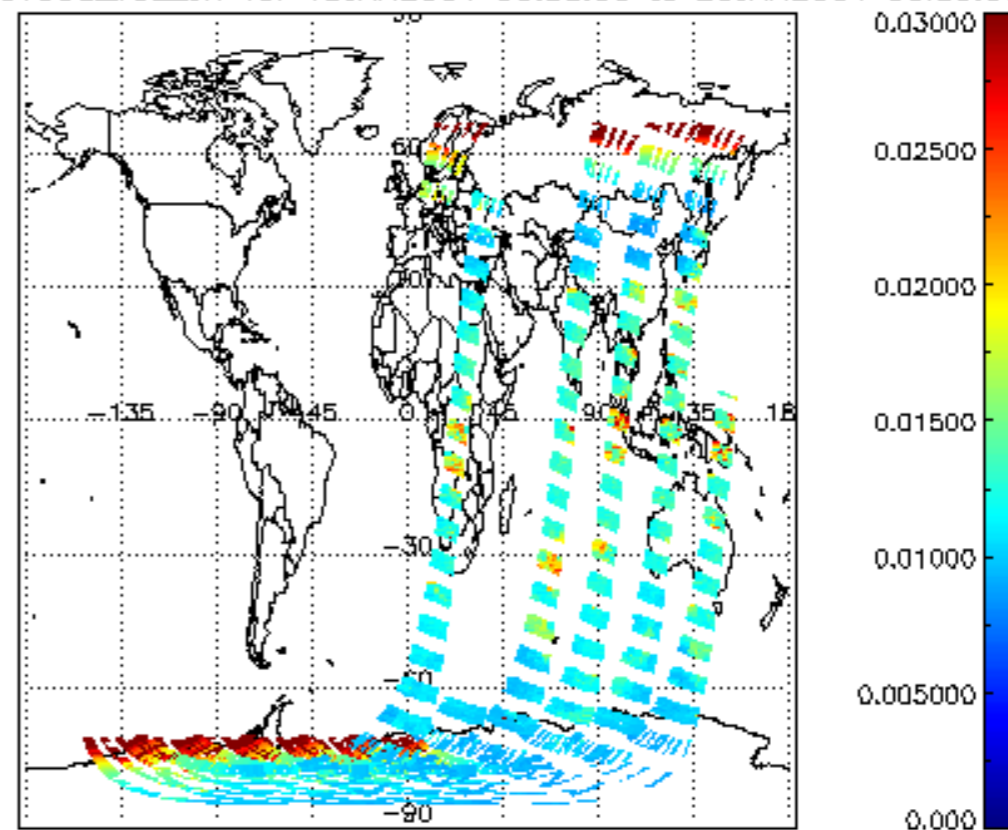




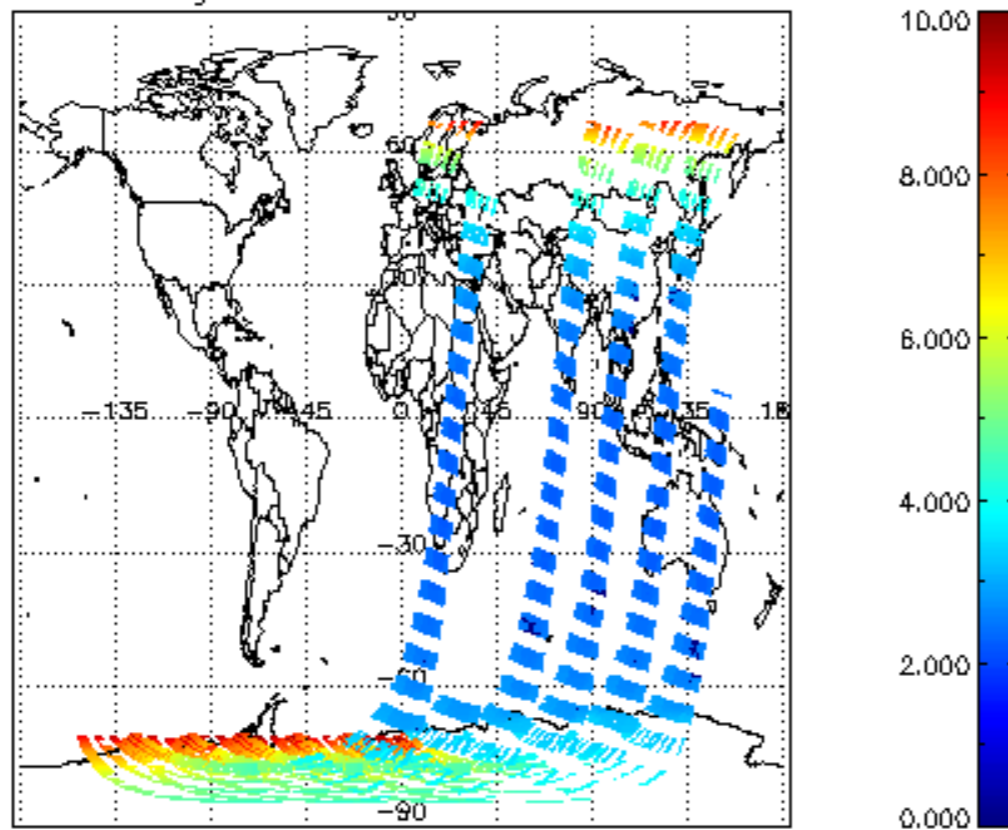
SCIOL2P_NADUV003_vcd for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



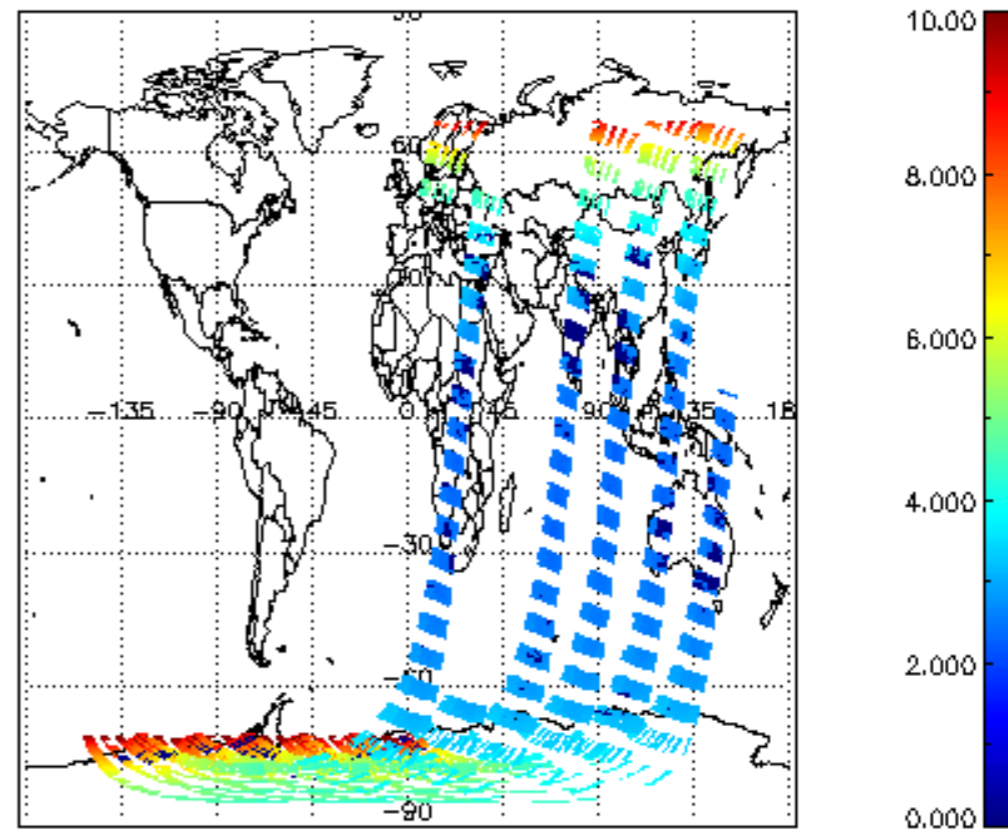
SCIOL2P_NADUV003_vcd_err for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

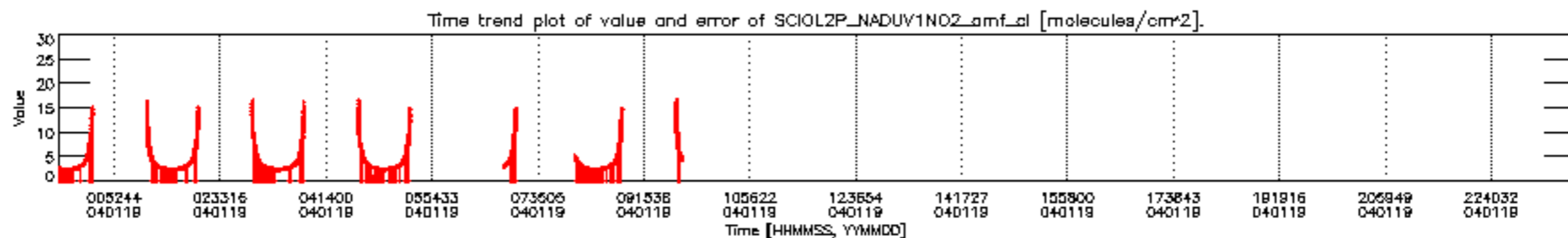
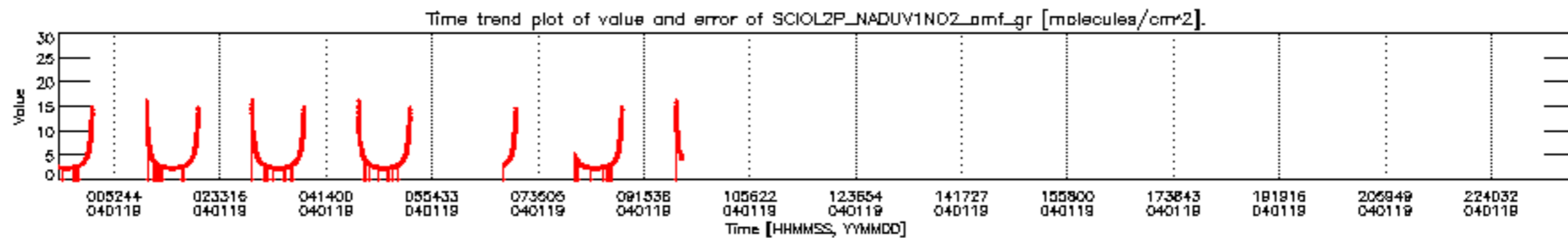
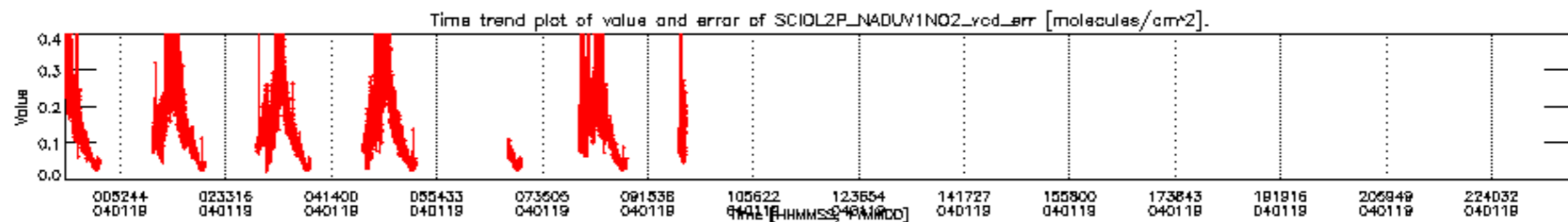
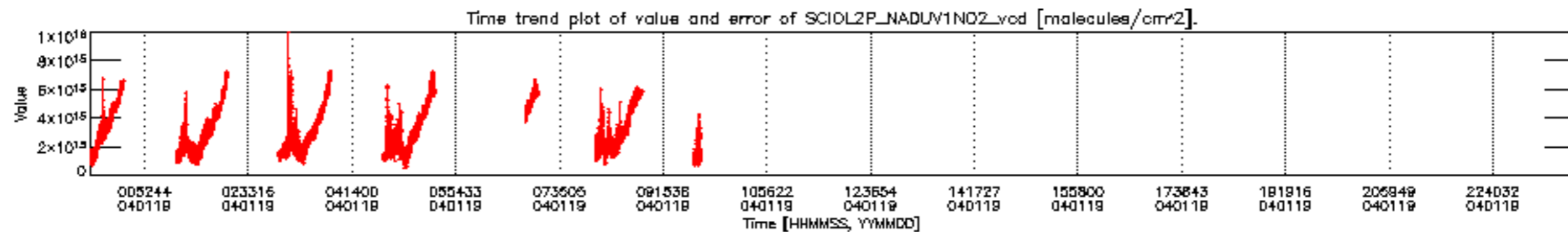


SCIOL2P_NADUV003_amf_gr for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

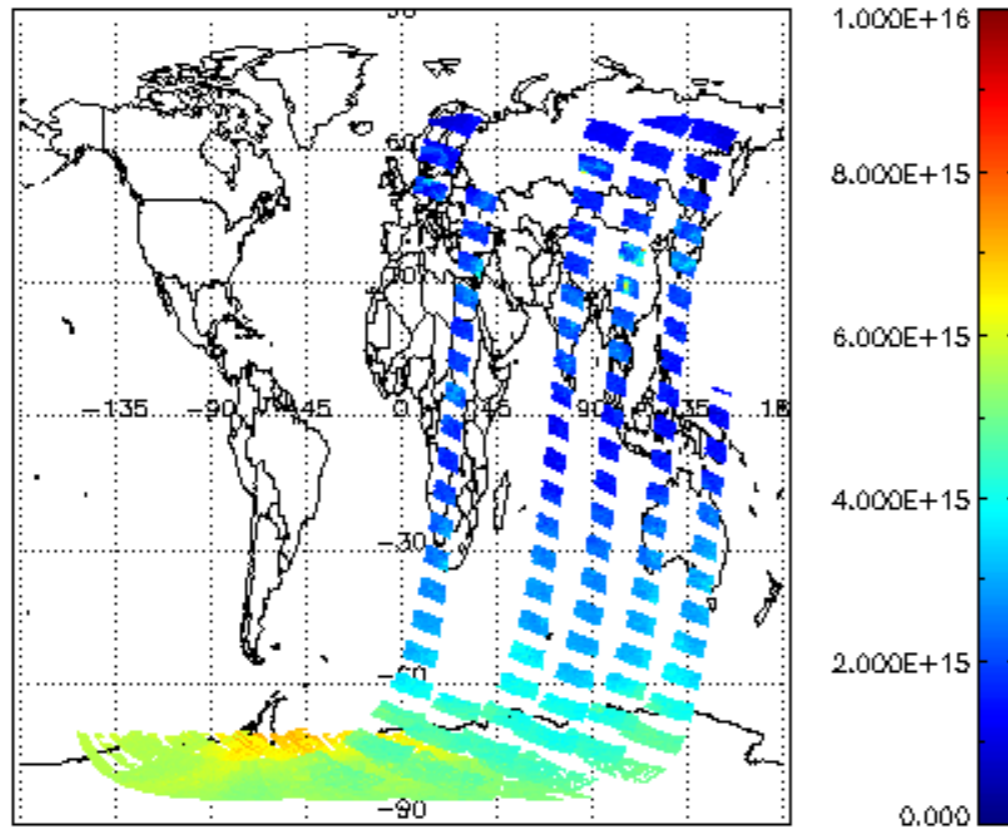


SCIOL2P_NADUV003_amf_cl for 19JAN2004 00:00:00 to 20JAN2004 00:00:00

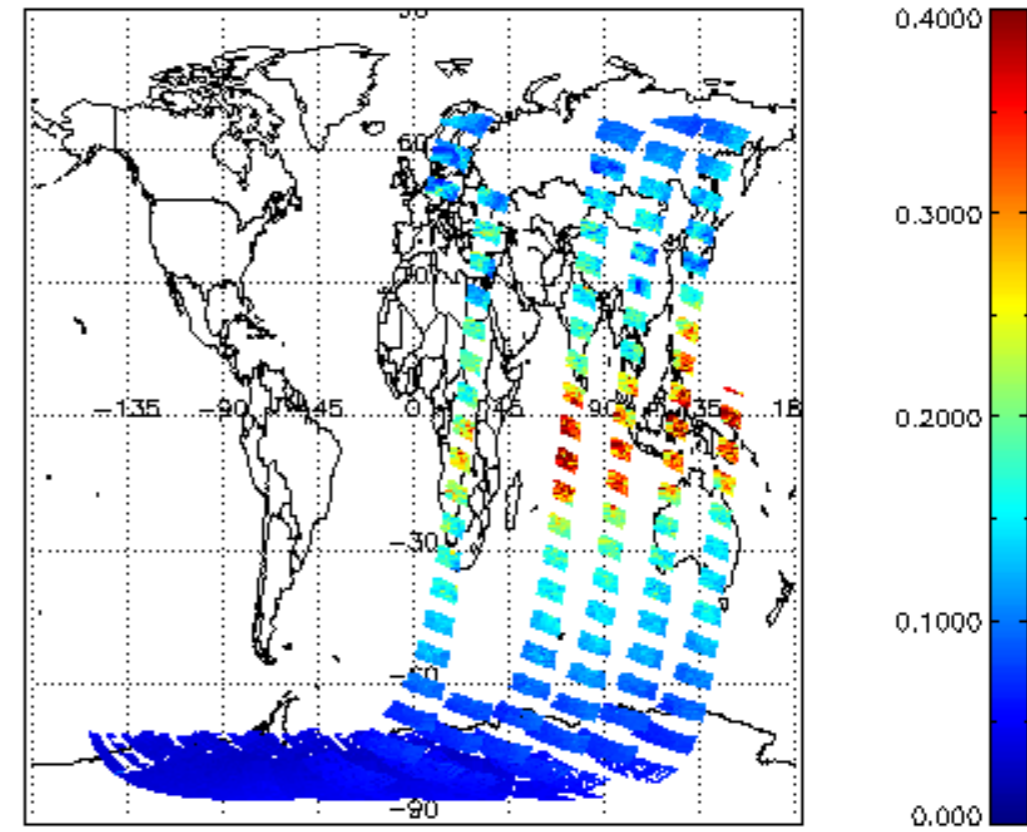




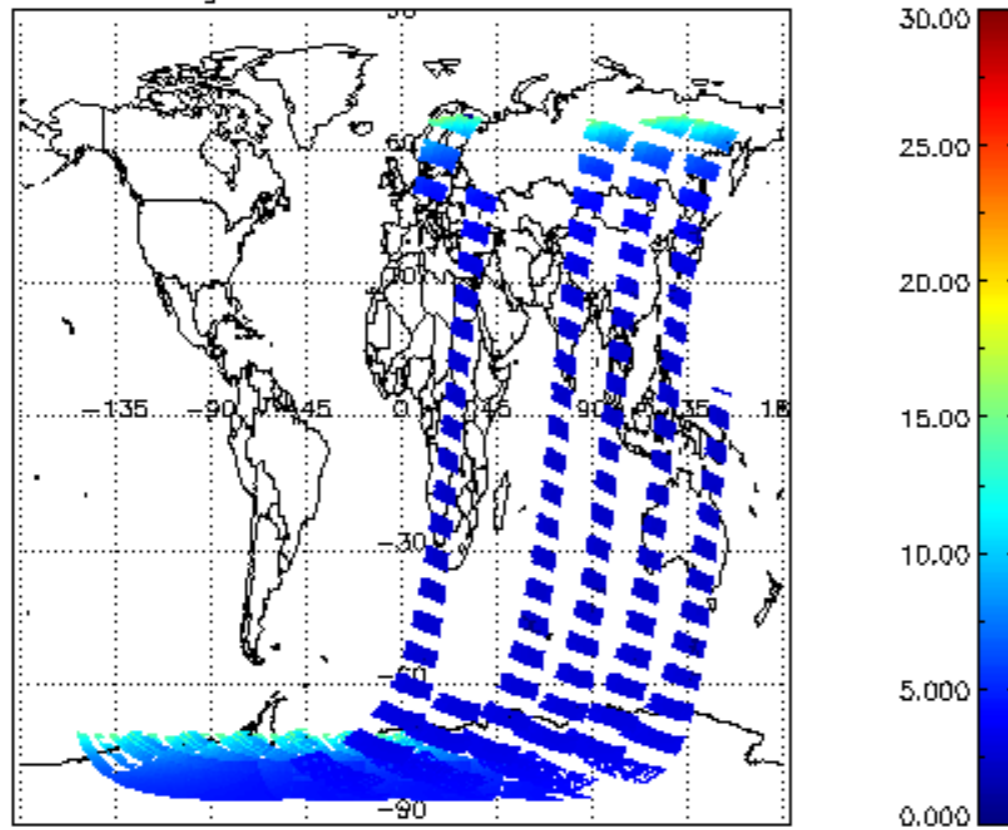
SCIOL2P_NADUV1NO2_vcd for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



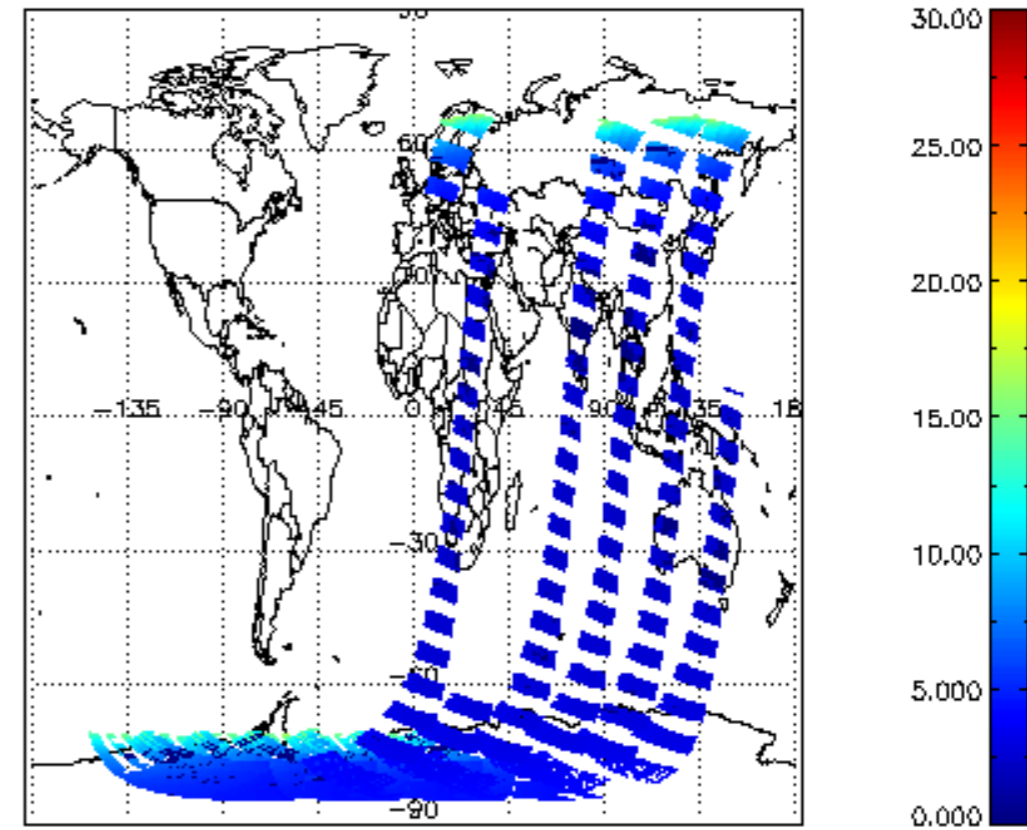
SCIOL2P_NADUV1NO2_vcd_err for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



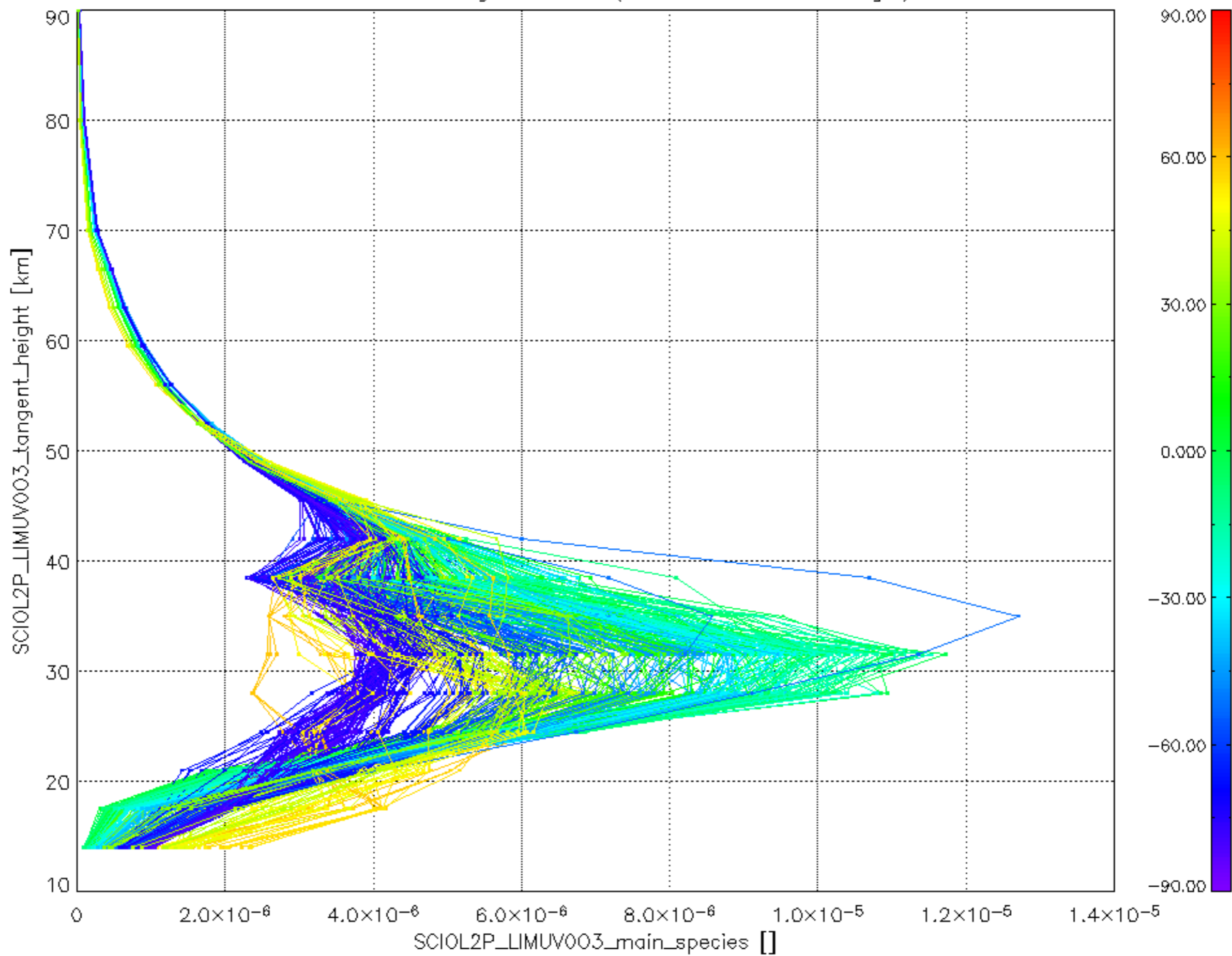
SCIOL2P_NADUV1NO2_amf_gr for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 19JAN2004 00:00:00 to 20JAN2004 00:00:00



Plot of SCIOL2P_LIMUV003_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).



Plot of SCIOL2P_LIMUV1N02_main_species.tang_vmr vs. tangent height.
 Colours indicate tangent latitude (see colour bar on the right).

